REMARKS

Claims 1-5, 21-42, 49 and 50 are pending, and claims 6-20 and 43-48 have been withdrawn with traverse under a restriction requirement. Claims 37, 49 and 50 have been amended. In light of the following, all of the currently pending claims are in condition for allowance. If, after considering this response, the Examiner does not agree that all of the claims are allowable, she is requested to schedule a teleconference with the Applicant's attorney to further the prosecution of the application.

Rejection of claims 1, 3, 5, 38, 49 and 50 Under 35 U.S.C. § 102(b) as being anticipated by Osada (U.S. Patent 5,291,464)

Claim 1

Claim 1 recites a determinator operable to determine the connection polarity of a read-write head from the recovered servo data.

For example, referring, *e.g.*, to FIGS. 5 and 6 and paragraphs 27-28 and 30-33 of the present application, a read-write head 14 reads servo data from a magnetic data-storage disk 12 and generates a servo signal that includes the servo data. Read-write head 14 is coupled to servo circuit 60 with a connection polarity (head connection reversed or not reversed), and a Viterbi detector 100 recovers a sync mark from the servo signal. A comparator 104 determines the connection polarity of read-write head 14 from the recovered sync mark. More specifically, by comparing the recovered sync mark to a stored (in register 106) noninverted copy of the sync mark, comparator 104 can determine the connection polarity of read-write head 14. If comparator 104 determines that the head connection is reversed, then the comparator can generate a signal that causes a phase-compensation circuit 64 to compensate for this reversed connection. If comparator 104 determines that the head connection is not reversed, then no compensation is needed.

Osada, on the other hand, does not disclose a determinator operable to determine the connection polarity from the recovered servo data. Instead, Osada

simply discloses a position control apparatus for positioning a carriage 2 for an optical head (FIG. 7 and the corresponding description). The apparatus includes a polarity inverter 16 that inverts a signal between changeover switches 15 and 17. However, simply inverting a signal between switches 15 and 17 has nothing to do with determining the connection polarity of a read-write head. The apparatus of Osada does not detect the polarity of the read-write head in any way, let alone determine it from recovered servo data. In fact, after reviewing Osada in its entirety, the Applicant's attorney is unable to find any mention of the polarity of the read-write head. Therefore, Osada does not satisfy the limitations of claim 1.

Claims 3 and 5

Claims 3 and 5 are patentable by virtue of their dependencies from independent claim 1.

Claim 38

Claim 38 recites recovering servo data from a servo signal having a phase that represents the connection polarity of a read head, and determining the phase of the servo signal from the recovered servo data.

Claim 38 is patentable for reasons similar to those recited above in support of the patentability of claim 1.

Claim 49

Claim 49, as amended, recites sampling a servo signal having a polarity, and recovering servo data from the servo signal regardless of the polarity of the servo signal.

For example, as discussed above in support of the patentability of claim 1, Viterbi detector 100 recovers servo data from the servo signal, and in this example, the polarity of the servo signal corresponds to the connection polarity of a read-write head 14.

Because a comparator 104 determines the polarity of the servo signal and can generate a signal that causes a phase-compensation circuit 64 to compensate for an inverted polarity, servo data from the servo signal is recovered regardless of the polarity of the servo signal.

Osada, on the other hand, does not disclose sampling a servo signal having a polarity, and recovering servo data from the servo signal regardless of the polarity of the servo signal. As discussed above, Osada simply discloses a position control apparatus for positioning a carriage 2 for an optical head (FIG. 7 and the corresponding description). The apparatus of Osada does not detect the polarity of the servo signal in any way, let alone recover servo data from the servo signal regardless of its polarity. In fact, after reviewing Osada in its entirety, the Applicant's attorney is unable to find any mention of the polarity of the servo signal. Therefore, Osada does not satisfy the limitations of claim 49.

Claim 50

Claim 50, as amended, recites sampling a servo signal having a polarity, determining the polarity of the servo signal, generating the samples of the servo signal if the polarity is a first value, and inverting the samples of the servo signal if the polarity is a second value.

Claim 50 is patentable for reasons similar to those recited above in support of the patentability of claim 49.

Rejection of claims 2, 4, 21-23, 27, 29, 31, 33 and 34 under 35 U.S.C. § 103(a) as being unpatentable over Osada in view of Reed (U.S. Patent 6144,513)

Claim 21

Claim 21 recites a comparator operable to determine the connection polarity of a read head from the recovered synchronization mark.

Claim 21 is patentable for reasons similar to those recited above in support of the patentability of claim 1.

Claims 27 and 33

Claims 27 and 33 are patentable for reasons similar to those recited above in support of the patentability of claim 21.

Claims 2, 4, 22, 23, 29, 31 and 34

These claims are patentable by virtue of their respective dependencies from independent claims 1, 21, 27 and 33.

Rejection of claims 24, 28 and 39-41 under 35 U.S.C. § 103(a) as being unpatentable over Osada and Reed in view of Tuttle (U.S. Patent 6,108,151)

These claims are patentable by virtue of their respective dependencies from independent claims 21, 27 and 38.

Rejection of claims 25-26 and 42 under 35 U.S.C. § 103(a) as being unpatentable ver Osada and Reed in view of Cloke (U.S. Patent 5,822,143)

These claims are patentable by virtue of their respective dependencies from independent claims 21 and 38.

Rejection of claim 36 and 37 under 35 U.S.C. § 103(a) as being unpatentable over Osada in view of Tuttle

Claim 36

Claim 36 is patentable for reasons similar to those recited above in support of the patentability of claim 27.

Claim 37

Claim 37, as amended, recites a Viterbi detector operable to recover the synchronization mark and other servo data from the samples of the servo signal regardless of the polarity of the servo signal.

Claim 37 is patentable for reasons similar to those recited above in support of the patentability of claim 49.

CONCLUSION

In light of the foregoing, claims 1-5, 21-42, 49 and 50 are in condition for allowance, which is respectfully requested.

In the event any fees are due as a result of this amendment, you are hereby authorized to charge such payment to Deposit Account No. 07-1897.

If, after considering this response, the Examiner does not agree that all of the claims are allowable, then it is respectfully requested that the Examiner schedule a phone interview with the Applicant's attorney at (425) 455-5575.

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Respectfully submitted,

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